



Università  
Ca'Foscari  
Venezia

**PROJECT ACRONYM AND TITLE:** MAREA - MAtchmaking Restoration, Ecology and Aquaculture

**FUNDING PROGRAMME:** H2020 Marie-Sklodowska Curie Actions Individual Fellowship

**CALL:** H2020-MSCA-IF-2019-European Fellowship – Marie Skłodowska-Curie Individual Fellowships

**KEYWORDS:** *Aquaculture, fisheries, marine science, coastal engineering, species interactions, biodiversity, conservation biology, restoration, reefs, molluscs*

**HOST DEPARTMENT:** DAIS – Department of Environmental Sciences, Informatics and Statistics

**SCIENTIFIC RESPONSIBLE:** Prof. Roberto Pastres

**FELLOW:** Camilla Bertolini

#### FINANCIAL DATA:

Project total costs	Overall funding assigned to UNIVE
€ 171.473,28	€ 171.473,28

#### ABSTRACT:

Aquaculture expansion is a necessary step to respond to increase protein demands while limiting the reliance on wild fisheries and imports. Bivalve aquaculture is considered to be one of the most sustainable, although some potentially negative environmental impacts arising from high deposition rates of faeces and pseudofaeces on the seabed have been identified. Habitat restoration management can be integrated within aquaculture practices to limit their negative impacts and it can bring positive environmental changes while obtaining both economical and cultural returns.

This project aims to integrate restoration with aquaculture, namely the reintroduction of native flat Oyster reefs under mussels culture sites and harvest oyster spat recruiting as seeds in the original farm area to obtain economical returns and start a local oyster farming chain, while leaving the reef intact to provide ecosystem services. The main aim is to identify suitable area and best practices for this integration, in terms of size, stock densities and environmental conditions necessary to obtain maximum benefits in terms of both harvestable product and ecosystem services. This will be done combining modelling and experimental approaches, with a pilot site in the Adriatic sea.

This approach will be included in the global environmental change scenario, and environmental optima will be found where it is possible to employ these strategies for maximum return in order to extend the theories beyond our study system. The results of this project will benefit multiple stakeholders, from fishermen to policy to scientists working in similar areas. The outcomes will move forward the concept of integrating practices to obtain greatest sustainability without impeding economical advances.

Planned Start date	Planned End date
1 <sup>st</sup> July 2021	30 <sup>th</sup> June 2023

#### PARTNERSHIP

1. Ca' Foscari University of Venice	Italia	Coordinator
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